



Howard County
RECREATION & PARKS
Robinson Nature Center
6692 Cedar Lane, Columbia, MD 21044
www.howardcountymd.gov/RobinsonNatureCenter.htm
410-313-0400



It's Easy Being Green – Teacher Pre-visit information

Concepts

Students use hands-on experiences to learn how we can use nature to protect the planet. On a tour of the building, they see how the nature center was designed to work with the natural landscape to reduce our impact on the land. Students discover how they impact their environment in their everyday lives. They use experimentation to test ways to reduce their impact. They explore how we can use the designs found in plants in animals to make our technology more efficient and less wasteful.

Program Activities

During the indoor portion, students will learn how nature can be used in design to reduce our impact on the environment. They will do this by calculating their ecological footprint to see how they impact the environment. Then they will test the heating efficiency of various house designs to see where there are flaws in our current designs. Finally, they will learn about biomimicry and how to use it to reduce our impacts and inefficiencies.

Previsit Suggestions

Have students watch a TED talk on biomimicry such as
http://www.ted.com/talks/janine_benyus_shares_nature_s_designs?language=en

Read *the Bamboo Solution* by Mary Roach in Discover Magazine
<http://discovermagazine.com/1996/jun/thebamboosolutio784>

To encourage students to start thinking about how they impact they environment, have students generate a list of all the ways they create waste throughout the day

Vocabulary

Ecological Footprint – the impact of a person or community on the environment, expressed as the amount of land required to sustain their use of natural resources

Efficiency – the ratio of the useful work performed by a machine or in a process to the total energy expended

Biomimicry – the design and production of materials, structures, and systems that are modeled on biological entities and processes

Storm Water Runoff - water from rain or melting snow that “runs off” across the land instead of seeping into the ground

Green Technology - technology whose use is intended to mitigate or reverse the effects of human activity on the environment



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It's Easy Being Green – Teacher Post-visit information

Dear Teacher,

We hope you enjoyed your recent field trip to the Robinson Nature Center. To help with follow-up in the classroom, we have developed the following post-visit materials:

- 1) Follow-up discussion
- 2) Follow-up activities

Follow-up Discussion

- 1) How do you think cost affects your ability to live a low impact lifestyle? Is it more expensive to be environmentally-friendly?
- 2) If you were the CEO of an energy and technology company like GE, do you think it would be a good business plan to research biomimetic designs?
- 3) What might be some ways your school could improve their storm water management?
- 4) If we are already headed towards a crisis, is it worth it to try and change our behavior?

Follow-up Activities

- Write a Top Ten list of ways they will personally reduce their ecological footprint
- Write a 'letter to the editor' explaining their views on needed changes to our consumption patterns
- Try to minimize their water consumption for one day. Journal their progress.
- Contribute to a class table or graph that shows methods of transportation used to get to school and analyze the data